

ABSTRACT OF THE DISCLOSURE

A system and method for processing a variable  
looping statement into a constant looping statement to  
enable loop unrolling. A lower bound and an upper bound  
of the loop index within the variable looping statement  
are determined. A constant looping statement is then  
formed using the lower bound and upper bound to define a  
range over which the loop index varies within the  
constant looping statement. The constant looping  
statement further includes a conditional statement that  
reflects conditions in the initial expression and/or the  
exit expression of the variable looping statement. The  
conditional statement controls execution of the body of  
the generated constant looping statement, which includes  
the body from the original variable looping statement.  
Loop unrolling may then be performed on the generated  
constant looping statement.

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